

Overview Table: Recommended Resources for Standardized Ecosystem Monitoring and Data Management Plans

Monitored Ecosystem Attributes	WRAMP Assessment Level*	Metrics	Recommended Guidance	Data Management Systems
Aquatic resources, watersheds, habitat restoration projects	Level 1 – Landscape	Maps, spatial data (geographic location and extent)	California Water Quality Monitoring Council (CWQMC) – Wetland and Riparian Area Monitoring Plan (WRAMP)	<ul style="list-style-type: none"> • EcoAtlas
Overall physical condition and functioning of wetlands and riparian areas	Level 2 – Rapid	Field observation-based scoring	CWQMC – WRAMP	<ul style="list-style-type: none"> • EcoAtlas
Tidal wetlands	Level 3 – Intensive	Contaminants, fish community, nutrients, physical processes, primary and secondary producers, vegetation	Interagency Ecological Program Tidal Wetlands Monitoring Project Work Team – Tidal Wetland Monitoring Framework for the Upper San Francisco Estuary, Version 1.0.	<ul style="list-style-type: none"> • BIOS • California Environmental Data Exchange Network (CEDEN) • EcoAtlas
Water Quality	Level 3 – Intensive	Bioassessments, cyanobacteria, cyanotoxins, sediment, water, tissue, toxicity	California Water Boards – Surface Water Ambient Monitoring Program (SWAMP)	<ul style="list-style-type: none"> • CEDEN
Wildlife	Level 3 – Intensive	Amphibians, aquatic invasive species, birds, invertebrates, mammals, plants, reptiles	California Department of Fish and Wildlife	<ul style="list-style-type: none"> • BIOS • California Natural Diversity Database (CNDD)
Habitat	Level 3 – Intensive	Soil, vegetation	California Department of Fish and Wildlife	<ul style="list-style-type: none"> • BIOS

* Refers to Wetland and Riparian Area Monitoring Program (WRAMP) framework. More information available here: https://mywaterquality.ca.gov/monitoring_council/wetland_workgroup/index.html.